

**MULTI-PARAMETER ARRHYTHMIA DISCRIMINATION****ABSTRACT OF THE DISCLOSURE**

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An arrhythmia discrimination device and method involves receiving electrocardiogram signals and non-electrophysiologic signals at subcutaneous locations. Both the electrocardiogram signals and non-electrophysiologic signals are used to discriminate between normal sinus rhythm and an arrhythmia. An arrhythmia may be detected using electrocardiogram signals, and verified using the non-electrophysiologic signals. A detection window may be initiated in response to receiving the electrocardiogram signal, and used to determine whether the non-electrophysiologic signal is received at a time falling within the detection window. Heart rates may be computed based on both the electrocardiogram signals and non-electrophysiologic signals. The rates may be used to discriminate between normal sinus rhythm and arrhythmia, and used to determining absence of an arrhythmia.

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